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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,581	10/30/2003	Yasuto Onitsuka	36242	8333

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EXAMINER	
KOCH, GEORGE R	

ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/697,581	ONITSUKA, YASUTO	
	Examiner	Art Unit	
	George R. Koch III	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 and 3-5 is/are rejected.

7)☒ Claim(s) 1 and 2 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/30/2003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

   a. Line 30, the word "position" should be spelled --positioned--.

   b. Line 44, the word "position" should be spelled --positioned--.

   Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

   1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onitsuka (US patent application publication 2002/0004980 A1) in view of Nakahara (US Patent application publication 2001/0032030 A1).

Onitsuka discloses a bonding method conducted by a bonding device including: a board support table (Figure 1, and 4, items 85 or 95) having a holding portions for individually holding a board including just a first board, the board support table being moved at least in the horizontal direction by a single positioning means (for example, items MX3, MX4 and MY3, MY4 in Figure 4); a holding state releasing means for individually releasing a holding state of the board held by the holding portion (see paragraph 0045 and 0057); a single pressure bonding heads (item 46 and 56) arranged corresponding the single board held by the holding portion, for pressure bonding an object to be bonded by pressure to an upper face of each board from an upper portion; and a lower supporting portion (items 47 and 57) for supporting the board from a lower portion in the case of pressure bonding conducted by the pressure bonding head, the bonding method comprising: a first positioning step of positioning the single board with respect to the single pressure bonding head corresponding to the board by the position means according to a result of detecting the positions obtained in the step of detecting the positions (see either Figure 2 or Figure 4); a first pressure bonding step for pressure bonding an object to be bonded by pressure to the single board by the single pressure bonding head when the single board, which been positioned, is interposed

between the first pressure bonding head and the lower receiving portion (see paragraph 0043-0045 and 0057); and a first holding state releasing step of releasing a holding state of the single board, which is being bonded by pressure, by the holding state releasing means in the first pressure bonding step (paragraph 0045).

Onitsuka does not disclose that the device has a position detecting means for detecting positions of the board on the board support table, or that there is a step of detecting the positions of the plurality of boards, which are held on the board position detecting means, or that there is a second positioning step of positioning a second board to a second pressure bonding head corresponding to the second board by the positioning means according to a result of positional detecting obtained in the position detecting step after the first holding state has been release, or that there is a second pressure bonding step of pressure bonding an object to be bonded by pressure to the second board by the second pressure bonding head corresponding to the second board which has been positioned. Onitsuka is really devoted to the processing of a *single* board, and does contain the concept of processing plural boards, and thus lacks steps and structures for processing the plural boards, especially with regard to positioning and detecting.

However, Nakahara does disclose that it is known to perform operations on plural boards on a single table (see paragraph 0003). Nakahara specifically discloses that the device has a position detecting means for detecting positions of the board on the board support table (recognition cameras 15, see paragraph 0029), and that these cameras perform the step of detecting the positions of the plurality of boards which are held on

the board position detecting means (see paragraphs 0033 to 0039). Nakahara also discloses that there is a second positioning step of positioning a second board to a second pressure bonding head corresponding to the second board by the positioning means according to a result of positional detecting obtained in the position detecting step after the first holding state has been release and that there is a second pressure bonding step of pressure bonding an object to be bonded by pressure to the second board by the second pressure bonding head corresponding to the second board which has been positioned (see paragraphs 0040-0043, which disclose multiple adjustments, i.e., positioning, followed by multiple mountings, i.e., pressure bondings). Such multiple processing operations, with positioning and detecting steps are known to improve efficiency (see paragraph 0016). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized detecting means, a detecting step, a second positioning step and second mounting or press bonding step as in Nakahara in order to achieve improved efficiency by performing more operations within a given unit of time with acceptable accuracy.

As to claim 3, Onitsuka discloses that the holding portions holds the board by means of vacuum suction (see the first line of paragraph 0045, which discloses vacuum suction in element 65, and see also paragraph 0057, which discloses that the holding portions, and steps therewith, associated with pressure bonding are the same as those associated with the ACF tape applicator.

As to claims 4 and 5, Onitsuka discloses that the board is a display panel (see especially paragraph 0001) and that the objects to be bonded are adhesive tape and an electronic part (see paragraphs 0002-0004, as well as the reference in general).

Allowable Subject Matter

6. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, such as Onitsuka and Nakahara, do not disclose a step of judging whether or not it is necessary to execute the first positioning step and the second positioning step according to the result of positional judged that a positional detection, when deviation of the board is in an allowable range, all boards are positioned with respect to the pressure bonding heads corresponding the respective boards, and when it is judged that a positional deviation of the board exceeds an allowable range, the step proceeds to the first positioning step.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and

giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George R. Koch III
Patent Examiner
Art Unit 1734

GRK
July 23rd, 2004